BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Comprehensive Development for Roads and Drains In Ward No. 7 And 8 Under CMC & TMC Grants, Kodigehalli Sub-Division, Yelahanka Zone, Byatarayanapura Division.

Sl No.	List of Roads
1	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division
2	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.
3	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.
4	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.
5	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.
6	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.
7	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division
8	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division
9	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division

Abstract Estimate

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	**KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW. P&IWTD SR 2016-17)**	Cum	**7996.35**	186.92	**1494678.12**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		1254.50		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		596.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		552.65		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		330.00		
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		188.00		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		391.20		

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Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		974.80		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		954.60		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		2754.60		
2	**Removing and Resetting of Footpath Slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17)**	Sqm	**613.85**	132.50	**81334.86**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		25.20		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		108.00		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		201.60		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		150.53		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		128.52		
3	**Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)**	Sqm	**6241.84**	80.56	**502842.43**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		1533.30		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		1818.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		187.20		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		515.10		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		153.72		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		1043.08		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		991.44		
4	**Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)**	Sqm	**795.17**	665.68	**529330.43**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		121.50		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		162.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		18.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		224.10		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		85.50		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		184.07		
5	**Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)**	Sqm	**265.14**	825.74	**218936.70**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		6.30		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		18.00		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		65.88		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		174.96		
6	**KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. specification. No. KBS(P.No.6, I.No.2.15 of PW,P&IWTD S.R 2016-17)**	Cum	**112.80**	2240.84	**252766.75**
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		112.80		
7	**KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)**	Cum	**464.26**	5348.76	**2483196.60**
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		4.80		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		1.60		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		339.55		
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		56.40		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		61.91		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
8	**KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD SR 2016-17)**	Sqm	**70.00**	244.86	**17140.20**
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		70.00		
9	**KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.15, I.No.4.31 of PW,P&IWTD SR 2016-17)**	Sqm	**840.00**	310.58	**260887.20**
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		840.00		
10	**KSRB 4-6.3 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness above 200 mm including cost of all materials, labour complete as per Specification. Specification No. KBS 4.6.2(P.No.15, I.No.4.30 of PW,P&IWTD SR 2016-17)**	Sqm	**296.00**	407.04	**120483.84**
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		296.00		
11	**Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges)** **Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2016-17)**	Cum	**340.32**	6231.74	**2120785.76**
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		322.50		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		17.82		
12	**Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17)**	Cum	**92.26**	11032.48	**1017845.57**
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		92.26		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
13	**KSRB - 4.9.2: Providing TMT steel reinforcement Fe500 for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.2 of PW, P&IWTD SR 2016-17)**	MT	**30.42**	73691.20	**2241686.30**
e	Improvements to Roads and Drains at Jakkur Layout, BGS Layout, and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		25.80		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		4.62		
14	**KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 (P.No.25, I.No.5.26.2 of PW, P&IWTD SR 2016-17)**	Sqm	**304.00**	961.42	**292271.68**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		8.00		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		296.00		
15	**KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (P.No.143, I.No.5.6 of PW,P&IWTD S.R 2016-17)**	Cum	**17.28**	4438.22	**76692.44**
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		17.28		
16	**KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.112, I.No.15.1 of PW, P&IWTD S.R 2016-17)**	Sqm	**28.80**	102.82	**2961.22**
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		28.80		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
17	**KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)**	Cum	**80.07**	5767.46	**461800.52**
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		1.92		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		0.45		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		77.70		
18	**Providing and fixing Ms gratings 260 mmx 260 mm for Shoulder Drains (P.NoVIII of I.No.237 in PW,P&IWTD SR 2016-17)**	Each	**60.00**	89.00	**5340.00**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		20.00		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		40.00		
19	**Providing and fixing M S Grating**	Sqm	**1.76**	6647.00	**11665.49**
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		1.76		
20	**Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)**	Sqm	**138.01**	1817.00	**250767.80**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		27.30		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		50.40		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		37.63		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		22.68		
21	**Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)**	Sqm	**46.80**	5317.00	**248835.60**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		28.80		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		18.00		
22	**KSRRB M300- Scarifying Existing Granular Surface to a Depth of 50mm by Manual Means. KSRRB M300-52.1. Scarifying the existing granular road surface to a depth of 50mm and disposal of scarified material and complete as per specifications. MORTH Specification No. 305.4.3 (P.No.148, I.No.19.58 of PW,P&IWTD S.R 2016-17)**	Sqm	**2402.00**	46.20	**110972.40**
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2402.00		
23	**KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)**	Cum	**2282.20**	148.76	**339499.33**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		199.88		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		129.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		330.75		
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		649.50		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		578.10		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		28.14		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		303.26		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		63.58		
24	**KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)**	Cum	**2034.18**	1768.08	**3596592.97**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		190.88		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		729.50		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		275.63		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		443.21		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		28.14		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		303.26		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		63.58		
25	**KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)**	Sqm	**7354.88**	29.68	**218292.84**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		763.50		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2918.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		166.50		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		1927.00		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		112.56		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		1213.02		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		254.30		
26	**KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)**	Sqm	**45011.12**	3.18	**143135.36**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		9226.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2064.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		8074.50		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		6949.44		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		8050.48		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		10646.70		
27	**KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)**	Sqm	**59894.00**	12.72	**761851.68**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		11162.00		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		7562.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		10137.50		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2831.00		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		7062.00		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		10238.50		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		10901.00		
28	**KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.162 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)**	Cum	**375.70**	7036.28	**2643530.40**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		58.63		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		129.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		81.63		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		45.20		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		61.25		
29	**KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)**	Cum	**2094.64**	8013.60	**16785607.10**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		399.58		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		199.28		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		329.64		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		77.08		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		282.48		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		370.54		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		436.04		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
30	**Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177, I.No.22.6.1 of PW,P&IWTD SR 2016-17)**	Cum	**284.00**	6217.96	**1765900.64**
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		284.00		
31	**Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17)**	Sqm	**2165.00**	95.40	**206541.00**
d	Improvements to Roads and Drains at Kempapura, Yogeshnagar, Kariyanna Layout and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2165.00		
32	**Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)**	No.	**700.00**	331.78	**232246.00**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		700.00		
33	**KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.182, I.No. 24.1 of PW.P&IWTD SR 2016-17)**	Sqm	**110.25**	63.60	**7011.90**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		110.25		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
34	**KSRRB M400-19: Construction of Median and island above road level with approved material deposited from borrowpits, spread, sloped and compacted as per Clause 400.7 complete as per specifications. MORTH Specification No.407 (P.No158 of I.No.20.20 in PW,P&IWTD SR 2016-17)**	Cum	**646.50**	208.82	**135002.13**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		94.50		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		552.00		
35	**KSRB 14.6-1: Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. Specification No. KBS. (P.No. 101, I.No. 14.6 of CSR 2015-16)**	Sqm	**2913.15**	966.72	**2816200.37**
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		315.00		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2598.15		
36	**KSRB 14.6-1: Providing and resetting of available heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm jOints, final compaction of paver surface joints into its final level, includingthick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between labour and HOM of machineries complete as per specifications (P.No 101 of I.No.14.6 in PW,P&IWTD SR 2016-17)**	Sqm	**161.85**	426.12	**68967.52**
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		161.85		

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Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
37	**KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)**	Sqm	**1751.75**	542.72	**950709.76**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		308.00		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		160.00		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		218.75		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		58.75		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		256.25		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		320.00		
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		430.00		
				Construction Cost	**43474311.00**
38	**Add cost of Waste Plastic @ 8% of Bitumen weight**	Kgs	**23627.54**	27.00	**637944.00**
a	Improvements to Roads and Drains at Amruthahalli Village, Hoodi Layout, Tala cauvery Layout and Surrounding Areas in Ward No 07 Byatrayanapura, Kodigehalli Sub Division		4507.26		
b	Improvements to Roads and Drains at Amruthanagar, Verma Layout, Bhuvaneshwarinagar and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		2247.88		
c	Improvements to Roads and Drains at Coffe Board Layout, Mariyannapalya and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		3718.34		
f	Improvements to Roads and Drains at YashodhaNagar, Jakkur Plantation and Surrounding Areas in Ward No 7 Thanisandra, Byatarayanapura Sub Divison.		869.46		
g	Improvements to Roads and Drains at Kodigehalli Village, Tatanagar and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		3186.37		
h	Improvements to Roads and Drains at Bhadrappa Layout, Balaji layout, Amco layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		4179.69		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
i	Improvements to Roads and Drains at Sahakarnagara, B,C,D Blocks, CQAL Layout and Surrounding Areas in Ward No 08 Kodiegahlli, Kodigehalli Sub Division		4918.53		
39				Cost towards Preparation of DPR LS	434743.00
40				Cost towards PMC / Third Party inspection LS	434743.00
				Sub Total	44981741.00
41				Miscellaneous and rounding off LS	18259.00
				Grand Total of the package	45000000.00

Total Cost of Package (In Words): Rupees Four Crore Fifty Lakh Only

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

For Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer
Byatarayanapura Division
Yelahanka Zone, B.B.M.P.
Bangalore - 560 092

ADMINISTRATIVE APPROVAL

Accorded For Rs 00450.00 Lakhs.

Head of A/c. P-3089

Div. Ref. No. 96/17-18 Date 19/12/17

GO: UDD 631 MNY 2017 Dt: 11/12/2017

AE 19/12

EE(BTP)

Technical Sanction

Accorded For 450.00 lakh Rs.

Head of A/C.....

CER NO :..... Dt:..

TA

CE (YNK)